

Title (en)
LIPID NANOTABLET

Title (de)
LIPIDNANOTABLETTE

Title (fr)
NANOCOMPRIMÉ LIPIDIQUE

Publication
EP 3805997 A4 20220420 (EN)

Application
EP 19810936 A 20190523

Priority
• KR 20180061345 A 20180529
• KR 2019006215 W 20190523

Abstract (en)
[origin: EP3805997A1] A lipid nanotablet according to the present disclosure includes: a supported lipid bilayer having a plurality of nanoparticles integrated in nanoparticle units; an immobile nano-receptor including at least one first surface molecule from among the plurality of nanoparticles and coupled to the surface of the nano-receptor; and a mobile nano-floater including at least one second surface molecule from among the plurality of nanoparticles coupled to the surface of the nano-floater. Interaction between the nano-receptor and the nano-floater is controlled according to the result of a reaction to an input by the at least one first surface molecule and the at least one second surface molecule, and the lipid nanotablet provides a logic result on the basis of the interaction.

IPC 8 full level
G06N 3/12 (2006.01); **G06N 3/00** (2006.01)

CPC (source: EP KR)
C12Q 1/6816 (2013.01 - EP); **G06N 3/002** (2013.01 - EP); **G06N 3/123** (2013.01 - EP KR)

C-Set (source: EP)
C12Q 1/6816 + **C12Q 2563/137** + **C12Q 2565/519**

Citation (search report)
• [X1] SOKOLOV ILYA L ET AL: "Smart materials on the way to theranostic nanorobots: Molecular machines and nanomotors, advanced biosensors, and intelligent vehicles for drug delivery", BIOCHIMICA ET BIOPHYSICA ACTA, ELSEVIER, AMSTERDAM, NL, vol. 1861, no. 6, 24 January 2017 (2017-01-24), pages 1530 - 1544, XP085110722, ISSN: 0304-4165, DOI: 10.1016/J.BBAGEN.2017.01.027
• [X2] HARROUN SCOTT G. ET AL: "Programmable DNA switches and their applications", NANOSCALE, vol. 10, no. 10, 1 January 2018 (2018-01-01), United Kingdom, pages 4607 - 4641, XP055896162, ISSN: 2040-3364, Retrieved from the Internet <URL:https://pubs.rsc.org/en/content/articlepdf/2018/nr/c7nr07348h> DOI: 10.1039/C7NR07348H
• [A] KEVIN L. HARTMAN ET AL: "Supported lipid bilayers as dynamic platforms for tethered particles", NANOSCALE, vol. 7, no. 1, 1 January 2015 (2015-01-01), United Kingdom, pages 66 - 76, XP055379244, ISSN: 2040-3364, DOI: 10.1039/C4NR05591H
• See also references of WO 2019231173A1

Cited by
NL2033069B1; WO2024061855A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3805997 A1 20210414; EP 3805997 A4 20220420; CN 112513888 A 20210316; CN 112513888 B 20240423; KR 102155313 B1 20200911; KR 20190135846 A 20191209; WO 2019231173 A1 20191205

DOCDB simple family (application)
EP 19810936 A 20190523; CN 201980036331 A 20190523; KR 20180061345 A 20180529; KR 2019006215 W 20190523